DOCUMENT RESUME

ED 418 667 HE 031 196

AUTHOR Grayson, J. Paul

TITLE Race on Campus: Outcomes of the First Year Experience at York University. [Working Paper].

INSTITUTION York Univ., Toronto (Ontario). Inst. for Social Research.
ISBN ISBN-1-55014-250-X
PUB DATE 1994-00-00
NOTE 64p.
AVAILABLE FROM Institute for Social Research, York University, 4700 Keele St., North York, Ontario, M3J 1P3, Canada; phone: 416-736-5061; fax: 416-736-5749 ($12.50).
PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Academic Achievement; Black Students; *College Freshmen; Commuter Colleges; Educational Attitudes; *Educational Experience; Foreign Countries; *Grade Point Average; Higher Education; *Racial Differences; School Involvement; Socioeconomic Influences; Student Attitudes; White Students
IDENTIFIERS Asian Students; *York University ON

ABSTRACT

This study examined the effects of race on the experiences and outcomes of first-year students at York University (Ontario). Data were collected through a survey of 1,093 students at their time of entry in September 1992 and a survey of 1,129 students conducted in February-March of 1993. The study found that students' socioeconomic backgrounds varied by race, with the families of students of European origin having higher incomes than others, while the parental education of students of East Indian origin was higher than for other groups. The results also indicated that black students, more than all others, believed that they had been academically prepared for the university and felt more competent than their peers. The study found that black students had the lowest grade point averages (GPAs) while students of European origin had the highest. The difference between the means, however, was only 2 percent. Regression analysis indicated that race, per se, had little if any impact on educational outcomes. Explanations for differences were most likely to be found in the different classroom experiences of students of different races and the degree of academic involvement on campus. (Contains 34 references.) (MDM)

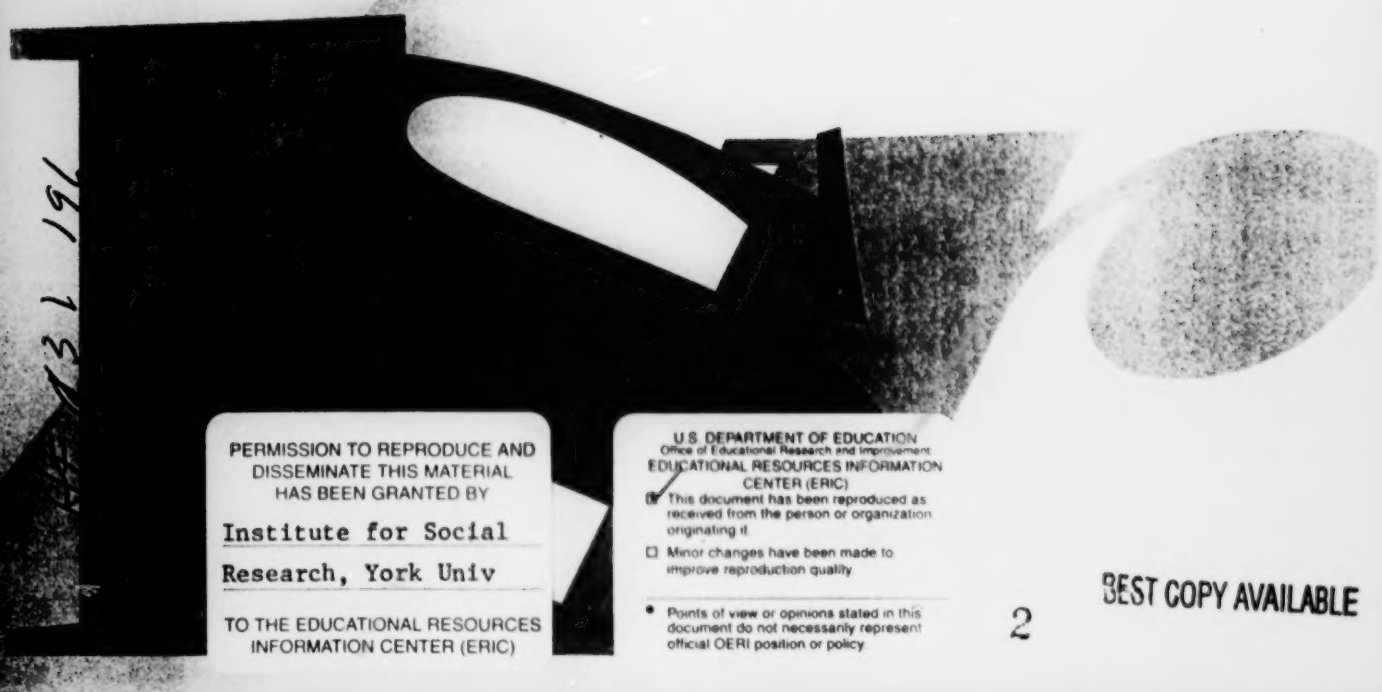
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 418 667

INSTITUTE FOR SOCIAL RESEARCH

RACE ON CAMPUS: OUTCOMES OF THE FIRST YEAR EXPERIENCE AT YORK UNIVERSITY

J. PAUL GRAYSON



PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Institute for Social Research, York Univ

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Race on Campus: Outcomes of the First Year Experience at York University

J. Paul Grayson

© J. Paul Grayson, 1994

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

Published by: **Institute for Social Research**
York University

ISBN: 1-55014-250-X

Institute for Social Research

Founded in 1965, the Institute for Social Research (ISR) is an Organized Research Unit of York University. The Institute's purpose is to promote, undertake and critically evaluate applied social research. The Institute provides consultation and support services to York faculty, students and staff conducting research in the social sciences, and, to a lesser extent, in the biological and physical sciences. For researchers from other universities, government agencies, public organizations and the private sector, the Institute provides consultation on research design and undertakes data collection, data processing and statistical analysis, on a fee-for-service basis.

ISR houses the largest university-based survey research unit in Canada, annually conducting twenty to thirty research projects ranging from small surveys in one locale to provincial and national surveys. The capabilities of the Institute include questionnaire and sample design, sample selection, data collection, preparation of machine-readable data files, statistical analysis and report writing.

ISR's Statistical Consulting Service provides consultation on research design and statistical analysis. The Service also sponsors short courses on statistical analysis, research methodology and the use of statistical software. The consulting service is partially supported by a grant from the Natural Science and Engineering Research Council (NSERC).

ISR's data archive provides public access to survey data collected by the Institute, to data sets from major Canadian surveys, and to official statistics, such as the census aggregate and public-use microdata files from the Canadian Census.

For more information, write to:

Institute for Social Research
York University
4700 Keele Street
North York, Ontario, Canada M3J 1P3

Telephone: (416) 736-5061; Fax (416) 736-5749

Foreword

The Institute for Social Research produces four types of articles in its publication series:

- Working papers;
- Reports on various technical and managerial aspects of the research process designed for technical support staff and research managers;
- Reports on topics of general interest to non-specialist readers, and,
- Reports on various methodological and substantive issues aimed at experts in the field.

The following is a working paper.

Acknowledgements

A number of individuals at the ISR contributed to various phases of the research on which the following report is based. In no particular order I would like to thank: Darla Rhyne, Mike Ornstein, David Northrup, John Tibert, Greg Hanson, and Anne Oram. I would also like to thank Bill Bruce for his assistance with name generation and Linda Grayson for helpful comments made on an early draft of the report.

C

Other Publications on York Students

Racial Origin and Withdrawal from University
J. Paul Grayson (1996)

Under- and Over- Achievement in First Year
J. Paul Grayson (1996)

The Retention of First Year Students in Atkinson College:
Institutional Failure or Student Choice?
J. Paul Grayson (1996)

Value Added in Generic Skills Between First and Final Year:
A Pilot Project (ISR Working Paper)
J. Paul Grayson (1996)

Race and First Year Retention on a Canadian Campus
J. Paul Grayson (1995)

Place of Residence and First Year Marks
J. Paul Grayson (1995)

The Health of First Year Students
J. Paul Grayson (1995)

The First Generation at York University
J. Paul Grayson (1995)

The College-University Linkage: An Examination of the Performance
of Transfer Students in the Faculty of Arts at York University
Stephen Bell (1995)

Globe and Mail Reports, Student Experiences,
and Negative Racial Encounters
J. Paul Grayson (1994)

Comparative First Year Experiences at York University:
Science, Arts and Atkinson
J. Paul Grayson (1994)

A Characterization of Areas of Racial Tension Among First Year Students:
A Focus Group Follow-Up to a Large Survey
J. Paul Grayson (1994)

Race on Campus: Outcomes of the First Year Experience at
York University
J. Paul Grayson (1994)

'Racialization' and Black Student Identity at York University
J. Paul Grayson with Deanna Williams (1994)

The Social Construction of 'Visible Minority' for Students of Chinese Origin
J. Paul Grayson with Tammy Chi and Darla Rhyne (1994)

Who Leaves Science? - The First Year Experience at York University
J. Paul Grayson (1994)

The Characteristics, Needs, and Expectations of Students Entering York University
J. Paul Grayson (1993)

Gender and Minority Group Differences in Desired Outcomes of Adult Post-Secondary Education: The Student Perspective
J. Paul Grayson (1993)

Outcomes and Experiences of First Year Science in Two Universities
J. Paul Grayson (1993)

Improving First Year Science Education in a Commuter University
J. Paul Grayson (1993)

The Experience of Female and Minority Students in First Year Science
J. Paul Grayson (1993)

Response Effects: Variations in University Students' Satisfaction by Method of Data Collection
David A. Northrup and Michael Ornstein (1993)

Student Withdrawals at York University: First and Second Year Students, 1984-85
Gordon Darroch, David A. Northrup and Mirka Ondrack (1989)

Summary

Canadian cities are experiencing increasing ethnic and racial diversity. As a result, there is a growing concern with the degree to which Canadian institutions meet the needs of a heterogeneous population. Despite this concern, as yet, there have been no systematic studies of race relations on Canadian campuses and the degree to which outcomes of the university experience are affected by race.

The study described in this report focuses on the experiences of, and outcomes for, first year students at York University in Toronto. Data for the study were collected through a survey of 1,093 students at the time of entry in September and a survey of 1,129 students conducted in February/March of the first year. Survey results lead to six major conclusions regarding the relationships among pre-entry characteristics of students, experiences within the university, race, and outcomes of the first year at York - self-assessed intellectual development and increase in knowledge, likelihood of returning to York, and first year grades as found in administrative records.

First, students' socio-economic backgrounds vary by race. For example, the families of students of European origin have higher incomes than others; however, the parental education of students of East Indian origin is higher than for other groups.

Second, many university experiences vary by race. For example: students of Chinese origin encountered the greatest difficulties in making friends; those with East Indian backgrounds faced the most difficulty in handling stress; fewer students of Chinese ancestry than any others believed that visible minority students had been treated equally; students of East Indian background were least satisfied with their social life at university.

Third, while university experiences varied by race, differences did not always favour individuals of European origin. By way of illustration, at the end of the first year: Black students more than all others believed that they had been academically prepared for university; on average, Black students felt more competent than their peers; students of East Indian origin had the highest degree of contact with faculty, teaching assistants, and staff, and the highest level of academic involvement on campus.

Fourth, to a degree, outcomes of the first year varied by race. For example, Black students had the lowest grade point averages while students of European origin had the highest. The difference between the means, however, was only 2%.

Fifth, although outcomes varied by race, results of regression analyses indicate that race per se had very little, if any, impact on the outcomes under consideration. Explanations for differences are most likely to be found in the different classroom experiences of students of different races and the degree of academic involvement on campus.

Sixth, strategies that would enhance classroom experiences and increase academic involvement would contribute to the realization of desirable outcomes on the part of all racial groups.

Introduction

With increasing non-white immigration to Canada, interest has grown in the extent to which non-whites have become integrated into Canadian institutions. The university is no exception in this regard; however, to date, systematic examinations of the background characteristics, university experiences, and university outcomes of students of various races have not been carried out in this country. If we are to avoid the simple application of perspectives developed in the United States to Canadian institutions, such inquiries must be carried out in various post-secondary institutions across the country.

As a first step in this direction the current inquiry will examine the first year experience of students in the Faculty of Arts, and the Faculty of Pure and Applied Science at York University in Toronto. Data for the study were collected via surveys carried out prior to, or at the beginning of, classes in September, and at the end of the first year in March. Given that this is the first examination of its kind in Canada, it would be inappropriate, before similar studies are carried out in other Canadian universities, to attempt to integrate findings into partial theories of the racial dimension of the university experience developed in the United States. More appropriate is the application of some insights gained from American studies that focus on the ways in which students' background characteristics, and university experiences, contribute to desired university outcomes. Within this perspective race can be viewed as a category conferring potential advantage or disadvantage in terms of background characteristics known to affect outcomes and actual experiences of university life.

Consistent with this orientation it will be seen that the background characteristics of first year students at York vary by race. Similarly, first year experiences vary by race; however, the data do not support the conclusion that the experiences of students of non-European origin are uniform and necessarily negative while those of European background are positive. Moreover, while such experiences may have implications for first year outcomes, the impact of race per se on outcomes is minimal. In essence, there is a considerable degree of racial equality in the outcomes of the first year experience.

Characterization of Recent Canadian Developments

In Canada in general, and in Toronto in particular, there has been a recent and radical increase in the number of immigrants from areas of the globe with substantial non-white populations. For example, between 1981-91 the numbers of African and Middle Eastern immigrants to Canada increased by approximately 400%; Asian/Pacific immigrants by 300%; and Central/South American immigrants by 200%. Over the same period the number of immigrants from the United States and Europe remained relatively constant. As a result of recent immigration patterns it is estimated that in 1991 25% of the population of Metro Toronto was made up of 'visible minorities'. By 2001 the figure will be 45% (Samuel, 1992:34-35).

In view of recent immigration patterns, the experience of non-white students in the university system has been of growing concern to politicians and members of the university community. For example, as pointed out in 1992 by Richard Allen, then Minister of Education for Ontario, "we must continue our efforts to develop and improve the climate for under represented groups not only by making universities more accessible, but also by making sure that the necessary supports exist that will allow these individuals to succeed in their studies" (University of Toronto Bulletin, March 23, 1992). It is fair to say that when considering the situation of non-white students in Ontario's universities the common assumption is that, as in the United States, such students are at a disadvantage.

It is natural that when examining the situation of non-white students in Canadian universities the perspective of Canadians would be influenced by a comparatively large amount of research that has been conducted in the United States. Overall, the results of American research in this area do indicate a considerable disadvantage on the part of minority students. For example, in a recent summary of the U.S. situation Smedley et al (1993:434) write that, "African-American and other non-Asian minority students attending predominantly white colleges are less likely to graduate within five years, have lower grade point averages, experience higher attrition rates, and matriculate into graduate programs at lower rates than white students and their counterparts at predominantly Black or minority institutions." In addition, Black students are more likely than their white peers to see predominantly white campuses as hostile, alienating, socially isolating and non-responsive to their needs and interests. Black students also experience greater estrangement from the campus community and heightened discomfort in interactions with faculty and peers than white students (Smedley et al, 1993:435).

While it may be tempting to assume that with respect to racial dynamics Canadian universities are similar to their American counterparts, there are differences between the societies that may affect racial experiences on campus. For example, as Benjamin (1994:14) points out, in contrast to the United States, Canada had only a short history of slavery and slavery never dominated the mode of production as it did in the American South prior to the civil war. In addition, while the vast majority of Blacks in the United States were born there, a high proportion of Canadian Blacks are recent immigrants from Caribbean countries. More importantly, some evidence indicates that at least one outcome of the university experience, graduation, may not vary by race in Canada. As noted by a report of the Student-Environment Study Group at the University of Guelph (1992:9), while Black and Chicano students in the United States may have lower graduation rates than whites, in this country, "the university graduation rate among Blacks, Caribbeans, and Central/South Americans is about equal to the general population; the graduation rate among Asian groups is higher than the general population." In both societies Asians (Chinese, Japanese, Koreans) are similar in that they value education and are upwardly mobile despite any differences that might exist between them and native born whites.

Objectives

While the U.S. literature on campus race relations is far more extensive than in Canada, Hurtado (1992:539) nonetheless notes that "a surprisingly small number of empirical studies have focused specifically on campus racial climates." Moreover, "only a few studies include measures of campus race relations in their models of student persistence, academic achievement, and social involvement." Measures such as these are ones that will be focused on in the current investigation.

While American studies on race relations in universities provide an obvious and welcome benchmark for research carried out in Canadian institutions, because of societal differences noted above, it is necessary to determine the nature of the racial dimension of university life in Canada before deciding on the appropriateness of integrating Canadian findings into American frameworks. Important aspects of the racial dimension of university life that warrant study before this decision is made include:

a. Descriptions of the background characteristics of students of various races. Such analyses would include consideration of matters such as family income and parents' education, both of which can be contributory to desired university outcomes. In the United States, it has been found repeatedly (and not surprisingly) that the socio-economic status of minority students is consistently below that of non-minority students (Loo and Rolison, 1986:58; Nettles, 1991:87).

b. Comparisons of the high school grades, self-assessed abilities, and expectations of students of various races entering university. These comparisons should be accompanied by examinations of the extent to which self-assessments of abilities change and expectations are met. Included in such examinations would be expectations and experiences regarding equality of treatment in the university. For reasons that will become apparent later, examinations of the ways in which race may coincide with different patterns of student interaction with faculty, staff, and other students is particularly important. While there are some differences from study to study, American research indicates that Blacks and Chicanos experience hostility on predominantly white campuses (Patterson et al, 1984; Loo and Rolison, 1986; Sedlacek, 1987; White and Sedlacek, 1987).

c. Examinations of the satisfaction of students of different races with various aspects of the university as described in b.

d. Comparisons of the outcomes of the university experience for students of different races and the extent to which different outcomes are related to students' background characteristics and experiences in the university. In the United States, some evidence suggests a negative relationship between environmental factors on mainly white campuses and desired outcomes like good grades for minority

students (Jackson et al, 1991; Nettles, 1991; Smedley et al, 1993:444).

This research agenda will not be achieved in this study. Instead, attention will focus on the experience of first year students entering York University in 1992 and 1993. While subsequent research will focus on the same students as they make their way through the university system, the first year experience is being singled out for attention for the simple reason that research has shown that particularly the first few weeks of the first year of university life are a crucial period in the transition from high school to university. If strong links are not forged with (or within) the institution dur ıg this period, it is unlikely that they will develop later (Upcraft and Gardner, 1989; Benjamin, 1990). As a result, the likelihood of leaving prior to degree completion, as well as other undesired outcomes, such as low levels of achievement, is increased.

The Outcomes Model

The General Perspective

When research on the impact of universities on students is undertaken, it is useful to distinguish among three major sets of factors: pre-entry characteristics of students; environmental factors; and outcomes (Astin, 1991). Included among *pre-entry characteristics* are family income, parental education level, high school attainment, gender, and so on. Each of these may be linked to university success. For example, certain institutions may graduate students who later have successful careers not because of the university's impact, but because the university attracts students from high socio-economic backgrounds who participate in networks useful to career success.

Environmental factors include curriculum, peer climate, and the degree to which the institution facilitates the social and academic involvement of students. Holding pre-entry characteristics constant, environmental factors may have implications for certain university outcomes. For example, two universities may have different effects on students similar in terms of their prior academic achievement and social background. It is these effects that are important in assessing the relevance of the university experience.

Outcomes can be defined as, "those aspects of the student's development that the institution either does influence or attempts to influence through its educational programs and practices" (Astin, 1991:38). For current purposes, outcomes can be divided into two kinds: a. final outcomes that may be the ultimate objectives of an institution with regard to student development; b. intermediate outcomes that may be contributory to final outcomes, but are themselves interim products of the student-environment interaction. Matters such as learning and intellectual development are obvious desired university final outcomes. Less obvious, but, it can be argued, equally desirable, are outcomes such as satisfaction with academic programs, value

changes, the intent to return to the institution to complete a degree, and so on. Interim outcomes would include things such as term marks.

Consistent with this orientation the primary objectives of the current study are to determine the background characteristics of students of various races entering York University; to describe the environmental experiences of students of different races; to assess a number of potential outcomes of the first year experience - intellectual development, increase in knowledge, intention to return to the institution, and grade point averages - and to determine if such outcomes can be related to environmental factors (university experiences) and/or race.

Social and Academic Involvement

Among environmental variables that have been found to have an important impact on various outcomes, few, if any, have been found to be as important as social and academic involvement. Participation in the formal curriculum, interactions with faculty, academic achievement, and participation in academic activities can be viewed as academic integration/involvement. Organized or informal associations with students can be identified as social integration/involvement.

In his massive study of university and college students in the United States, Astin came to two general conclusions with regard to certain aspects of social and academic involvement. First, "the student's peer group is the single most potent source of influence on growth and development during the undergraduate years" (Astin, 1993:398). Second, "next to the peer group, the faculty represents the most significant aspect of the student's undergraduate development" (Astin, 1993:41). While other studies have pointed in the same direction (Centra and Rock, 1971; Pascarella and Terenzini, 1976, 1977, 1979a, 1979b; Endo and Harpel, 1983; Pascarella, et al, 1983a; Volkwein et al, 1986; Astin and Astin, 1992) the particular strength of Astin's conclusions stems from the fact that they were based on observations of tens of thousands of students from hundreds of different institutions. Given the potential importance of factors such as these to university outcomes it is important to detect any differences in social and academic involvement and any other university experiences (environmental factors) that might be related to minority status or race.

Despite the foregoing findings it should not be assumed that the effects of academic and social involvement are uniform. For example, after examining several studies, Pascarella and Terenzini (1991:411) conclude that academic integration, measured by grades, intellectual development, and faculty interaction, is most influential for persistence and degree attainment for students with low social integration. With increased social integration, however, the importance of academic integration decreases. Similarly, Pascarella and Terenzini (1979a) found that informal contact with faculty to deal with intellectual matters, and the reported quality of the contacts, were most influential in explaining the persistence of students with initial low levels of commitment to graduation or who had parents with little education. In essence, faculty contact

may assist two potentially at-risk groups: those who are not socially involved and those who have a low commitment to graduation and/or parents with low education. Finally, an earlier study of science students at York demonstrated that while academic involvement was particularly important in explaining a number of specific outcomes, the impact of social involvement was negligible. More importantly, within the general category of academic involvement, a positive classroom experience (particularly satisfaction with instruction and being presented with materials relevant to career success) was conducive to positive outcomes along a number of dimensions (Grayson, 1994a).

Although the formal and informal components of academic and social involvement may be contributory to certain university outcomes, commuter students, such as those at York University, because of the relatively limited time spent on campus, may have less opportunity than students at residential universities to engage in activities other than those associated with the formal curriculum. As a result, it might be reasonable to assume some less desirable outcomes from commuter as compared to residential universities.

This expectation was borne out by a classic study by Chickering (1974). In an examination of students from 270 institutions of higher learning in the United States he noted that commuter students ranked themselves relatively lower than others on public speaking and on academic, writing, artistic, and leadership skills. Moreover, after controlling for pre-entry characteristics, it was found that living at home was inversely related to the social confidence of students. Similarly, Astin and Astin (1992:7-9), in a large study of US science students, discovered that, "students who live at home or in private off-campus housing are also likely to decrease their [degree] aspirations." The general thrust of Chickering's and the Astins' research is supported by other studies (see Welty, 1976; Dietsche, 1990; Astin, 1993; Grayson, 1994a).

Nature of the Sample

York is a large commuter university with approximately 26,000 full-time, 15,000 part-time, and 3,500 graduate students located on the suburban fringe of Metropolitan Toronto. Roughly 10% of undergraduate students live in residence on campus.

Overall, approximately 21% of students are members of visible minority groups. The non-minority portion of the student body is made up of, among others, large numbers of students of Italian, Portuguese, Greek, and other non-English origins. The heterogenous nature of York's student body, and the challenge it represents, is recognized by York in its *Academic Plan*. More concretely, it is stated that, "In judging present academic structures and programmes, as well as proposals for change, attention should focus on the extent to which, in their respective contexts, they help to eradicate systemic and structural discrimination and promote equity for students, staff and faculty" (*University Academic Plan*, 1994:3).

For the current study, the extent to which first year students might have background characteristics, university experiences, and first year outcomes that vary by minority status and/or race was determined through analyzing the results of two surveys that are part of an on-going program of student studies at York University. In 1992-93 students entering the Faculty of Pure and Applied Science were surveyed on the first day of classes, in November, and in March. In 1993-94 students entering the Faculty of Arts and Atkinson College (the evening operation of York University) were surveyed prior to the commencement of classes and in March. The current study is based on the September and March samples from Pure and Applied Science and Arts students. Because they are predominantly 'mature' part .ime students, Atkinson students will be analyzed in a separate study.

The number of cases for the combined September samples is 1093; for the combined March samples the number of cases is 1129. Both samples were appropriately weighted. Overall, the Faculty of Pure and Applied Science and the Faculty of Arts enrol approximately 80% of all full-time first year students entering York University.

The response rates for the September survey of science students was approximately 86%; for Arts students approximately 70%. March response rates for Science and Arts were somewhat lower with an approximate 68% response rate for Science and 54% for Arts. Although roughly 70% of students provided their student numbers on each survey, it was not always the same 70%. As a result, while some longitudinal analyses are possible, for some purposes, they are not feasible.

Background Characteristics

A study conducted by the Institute for Social Research at York University found that overall, in 1991, approximately 21% of York students in all years defined themselves as members of a visible minority group. In the first year surveys conducted for this study, approximately 26% of students self-identified as members of a visible minority. This figure corresponds to the visible minority population of Toronto as a whole. As has been indicated elsewhere, however, the whole idea of visible minority is problematic (Grayson 1994b, 1994c). For example, at York University, roughly 50% of students who grew up speaking Chinese in the family do not regard themselves as members of a visible minority group. As a result, for heuristic purposes, in this study all students who spoke Chinese in their family while growing up were defined as members of a visible minority group. In general the minority category will be made up of Blacks and students of East Indian, Chinese, and 'other' origins. Among all racial groups, approximately 63% of students are female.

If race rather than visible minority status is examined, approximately 74% of all students can be viewed as of European origin. Students of Chinese, Black, East Indian, and 'other' non-European origin make up about 9%, 5%, 4%, and 10% of the first year student population. Although the designation 'Chinese' should be viewed as an ethnic rather than as a racial category,

in this study it is used to signify distinct physical characteristics. Similar arguments could be made regarding the category 'East Indian' that is, in reality, a geographical origin characteristic.

Survey data show that 50% of minority, and 18% of non-minority, students were foreign born. Among minorities, 84% of Chinese students were not born in Canada. The numbers of the foreign born among Blacks and students of East Indian and 'other' origin were 48%, 50%, and 44% respectively.

With respect to language spoken in the home while growing up, 74% of students of European origin reported English. The group with the greatest number who spoke English in the family was the Blacks: 93% came from families in which English was spoken. The number of East Indian origin students who spoke English in the family was 76%. For students of Chinese origin, the number was only 26%. In terms of any advantage that might derive from growing up in a family in which the first language was English, it would appear that individuals of European origin are no further ahead than Black students or those of East Indian origin.

Survey data also indicate that for both minority and non-minority groups approximately one quarter of entering students come from families in which the father had completed college or university. On average 17% of mothers had the same level of education with little difference between minority and non-minority groups. Despite these overall similarities, the parental education of Black students is the lowest while that of parents of students of East Indian origin is the highest.

Although minorities and non-minorities did not differ in terms of parental education, the annual family incomes of minorities as determined in the September survey are significantly lower than those of non-minorities. For example, only 39% of the families of minority students earned more than $50,000 per year. The corresponding figure for non-minorities is 56%. Within the minority category, the lowest family incomes were reported by Blacks and those of Chinese and 'other' origins: approximately 62% of each reported family incomes of less than $50,000 per year. Among students with East Indian ancestry, 55% reported incomes this low. By way of comparison, only 44% of the families of European origin students had incomes below $50,000.

Differences such as these should be seen in connection with the fact noted above that levels of parental education did not differ by minority status. (According to Statistics Canada the average family income in Ontario in 1992 was $58,634.) This fact notwithstanding, it is impossible to determine if differential family incomes are a reflection of length of time in Canada, particular skills of parents, lack of facility with language, the number of working adults in the family, or labour market discrimination.

Survey data indicate that the summer earnings of minority students are significantly lower than those of non-minorities: only 20% of the former compared to 43% of the latter earned $2,001 or more. The lowest summer earnings were among students of Chinese origin, only 7% of whom earned $2,001 or more. Among Blacks and students of East Indian and 'other' origins

approximately 25% earned $2,001 or more.

Conclusion

Conclusions that can be reached regarding the backgrounds of first year York students are as follows:

a. While the educational background of parents is similar independent of minority status, some differences can be seen that are based on race. For example, the parents of Blacks have the lowest levels of education; the parents of students of East Indian origin the highest.

b. Despite similar educational levels, the family incomes of minority students are relatively low.

c. The summer earnings of non-minority students are higher than those of minorities. The earnings of Chinese students are the lowest of all.

Personal Assessments

Students enter first year with a variety of expectations and anxieties. Table 1 presents data on initial assessments of a number of personal attributes in September that may have implications for the university experience and re-assessments of the same attributes in March that may have been, in part, affected by university experiences.[1]

Distinctions in this and following tables have been made between individuals of different minority statuses - visible and non-visible - and different races. As will be seen, simply viewing students in terms of minority status obscures important differences based on race. Potential gender differences will be dealt with in regression analyses later.

Also in this and following tables, row totals provide the total number of students in the race category who provide the answer listed on the left side of the table. Numbers in columns show the number of students in each minority or race group who give the answer to the left of the table. Where means are given, the numbers refer to the number of students on which the mean is based. These procedures were followed so that the amount of data presented would be kept to a manageable level.

---

[1] The total number of students classified as 'not visible' is sometimes slightly lower than the total number of European origin. This is because some students from European backgrounds defined themselves as visible minorities. In fact, focus group studies (Grayson, 1994b, 1994c) indicate that many students identify dark-skinned people from Mediterranean countries as visible minorities.

Table 1: Personal Assessments (Sept) and Re-evaluations (March)

	Minority Status				Race											
	Visible		Not Visible		Black		East Indian		Chinese		Other		European		Row Total	
	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar
Academically Prepared*	55% (107)	52% (155)	59% (471)	60% (494)	52% (20)	76% (43)	55% (12)	47% (29)	50% (17)	43% (42)	61% (74)	50% (43)	59% (471)	61% (487)	59% (593)	58% (644)
Emotionally Prepared*	59% (138)	46% (139)	61% (471)	60% (474)	65% (25)	55% (30)	49% (11)	35% (22)	61% (20)	45% (45)	59% (71)	50% (44)	61% (486)	60% (475)	61% (613)	56% (617)
Prepared Work Habits	50% (117)	39% (116)	53% (419)	42% (344)	46% (18)	39% (22)	40% (9)	39% (24)	61% (20)	41% (39)	53% (63)	36% (32)	53% (419)	43% (346)	53% (529)	42% (463)
Drive to Succeed**	78% (183)	68% (197)	80% (626)	72% (569)	79% (30)	82% (46)	79% (17)	61% (35)	77% (25)	63% (61)	78% (94)	68% (57)	80% (626)	72% (573)	79% (792)	71% (773)
Write Eng no Problem***	87% (200)	75% (209)	93% (730)	86% (608)	93% (35)	84% (48)	99% (20)	74% (46)	66% (52)	65% (58)	90% (105)	81% (61)	95% (707)	86% (610)	92% (919)	83% (823)
Comparative Competency!	3.7 (230)	3.4 (308)	3.8 (782)	3.6 (804)	3.7 (36)	3.7 (57)	3.7 (22)	3.5 (61)	3.4 (80)	3.2 (104)	3.8 (116)	3.4 (91)	3.8 (743)	3.6 (807)	3.8 (996)	3.6 (1119)

* Chi-square sig. .05 level March minority and race
** Chi-square sig. .05 level March race only
*** Chi-square sig. .05 level Sept and March minority and race
! F sig. .05 level Sept race; sig. .05 level March minority and race

Data in Table 1 refer to the number of students agreeing or strongly agreeing (scores of 4 and 5 on a 5 point scale) that they: are/were academically and emotionally prepared for university; are/were prepared in terms of work habits, had/have the drive required to succeed at university; and could/can write English with no problem. The table also includes information on the mean 'comparative competency'.[2]

Minority Differences in September

Overall, the data presented in Table 1 suggest that with one exception the personal assessments of visible minority and non-visible minority students are similar when they entered university in September. For example, 55% of minority students and 59% of non-minority students believed that they were academically prepared for university. Fifty nine percent of visible minority students and 61% of non-minority students thought that they were emotionally prepared. In terms of work habits and study skills 50% and 53% of minority and non-minority students felt ready for the rigours of university life. Seventy eight percent and 80% respectively of minority and non-minority students thought that they had the drive to succeed at university. Finally, the average competency score for minority students - 3.7 - was almost identical to the score for non-minorities - 3.8. Although not shown in the table, it might be noted that the Ontario Academic Credit (OAC) marks of minorities and non-minorities were 78% and 79% respectively. While the differences are minor, they are statistically significant.

The only exception to this pattern of similarity for minority and non-minority students can be found in the realm of their ability to write in English with no problem. Ninety three percent of non-minority students compared to 87% of minority students agree to having no problem in this regard. While the absolute difference is small, it is statistically significant.

Race Differences in September

With respect to academic preparation, data in Table 1 indicate that for academic and emotional preparation for university, preparation in terms of work habits and study skills, and drive to succeed, there are no statistically significant differences based on race. Not shown in the table is that the OAC marks of students of Black, East Indian, Chinese, 'other', and European ancestry were 77%, 80%, 78%, 76%, and 79% respectively. Moreover, differences are statistically significant.

---

[2] In order to assess how students rated their competency along a number of dimensions, in September they were asked, on a five point scale on which 1 equalled low and 5 high, how they compared to those in their final high school class in terms of: thinking and reasoning skills, problem solving skills; decision making, planning and organizing skills; time management skills; communication skills; interpersonal and social skills; quantitative and mathematical skills; independence; supervisory skills; and bilingual skills (English and French). In March they were asked to compare themselves along the same dimensions to other university students at their level.

Regarding ability to write in English, 99% of East Indian origin students compared to 95%, 93%, 90%, and 66% of students of European, Black, 'other', and Chinese origin agreed that they had no problem. Moreover, differences are statistically significant. Perhaps most important is the difference between students of Chinese origin and all others. When comparative competency is examined it is evident that the average scores for those of European and 'other' origins - 3.8 - are higher than for East Indians, Blacks, and Chinese, with respective scores of 3.7, 3.7, and 3.4.

In general, the data suggest that in September, with two exceptions, the personal assessments of students of different racial origins are comparable. The exceptions are ability to write in English and comparative competency. For these factors students of European origin tend to feel more confident than other students, particularly those of Chinese origin. The data also suggest that sole reliance on differences related to visible minority status may mask important differences based on race.

MINORITY DIFFERENCES IN MARCH

The data in Table 1 relating to assessments of having been academically prepared for university indicate that while there were no statistically significant differences in September, by March of the first year only 52% of minorities compared to 60% of non-minority students believed that they had been academically prepared for university. Similarly, 60% of non-minority students compared to only 46% of minority students felt that they had been emotionally prepared. In both cases differences are statistically significant.

As in September, there were no statistically significant differences with regard to assessments of how prepared students were in terms of work habits and study skills. Overall, by the end of the year, only 42% of all students felt that they were sufficiently prepared in this regard. Similarly, there were no significant differences in terms of self-assessed drive to succeed at university.

With regard to having no problems with writing English, statistically significant differences remained between minorities and non-minorities: 75% of the former and 86% of the latter stated that they had no problem in writing English.

When comparative competency is examined, in contrast to the situation in September, although absolute differences are small - 3.4 for minorities and 3.6 for non-minorities - the differences between the two groups are statistically significant.

Overall there are more differences between minorities and non-minorities in March as compared to September. In March, significantly more non-minorities than minorities believed that they had been academically and emotionally prepared for university. Also, non-minorities felt more competent compared to their peers than minorities. In terms of being prepared because of work habits and study skills, and in having the drive to succeed, there were no differences based

on minority status. In general, however, there was a small yet widening gulf between minority and non-minority students.

RACE DIFFERENCES IN MARCH

Table data also indicate that whereas in September there had been no statistically significant differences based on race in terms of academic preparation, by March differences were significant. More Blacks than any other group, 76%, felt that they had been prepared for university. Only 43% of students of Chinese origin felt the same way. Roughly similar percentages of East Indians and 'others' - 47% and 50% - also felt that they had been academically prepared. The figure for students of European origin is 61%.

Significant differences also exist for assessments of emotional preparation; however, the ordering of groups is different. More students of European origin, 60%, than of any other group believed that they had been emotionally prepared for university. Only 35% of East Indian students felt the same way. The figures for Chinese, 'other' and Black students were 45%, 50%, and 55% respectively.

There were no statistically significant differences based on race for students' assessments of how prepared they had been in terms of work habits and study skills. Overall, only 42% agreed that they had been ready in this area.

In September there had been no significant differences based on minority status and race in terms of having enough drive to succeed. Similarly, in March there were no differences based on minority status; however, when it came to race, differences were statistically significant. Most evident is that the vast majority of Black students, 82%, believed that they had the drive to succeed. Among students of East Indian origin only 61% replied in the same fashion. Figures for students of Chinese, 'other', and European origins are 63%, 68%, and 72% respectively.

In March, students of European origin and Blacks, 86% and 84% respectively, were most confident of their ability to write in English. The least confident were individuals of Chinese origin, only 65% of whom stated that they had no difficulty in this regard. Seventy four percent of students of East Indian origin and 81% of 'others' also stated that they had no difficulty when it came to writing English.

When they compared their competencies to those of their peers, the lowest self-assigned score, 3.2, was that of students of Chinese origin. The highest, 3.7, was self-assigned by Blacks. Students of East Indian origin and 'others' gave themselves 3.5 and 3.4 respectively. Individuals of European origin scored 3.6.

While the figures pertaining to visible minority status perhaps suggested a widening gulf, it is clear from the data on race that the experience of the first year as captured in the measures outlined in Table 1 was not uniform across all non-European groups; moreover, in some instances

the experience of non-European groups was more positive than that of students of European origin.

Conclusion

Conclusions that can be drawn from the data in Table 1 are as follows:

a. In September, independent of minority status and race, students begin university with relatively similar assessments of their degree of preparation for university.

b. By the end of first year, however, a gulf starts to develop between minorities and non-minorities when they re-assess how prepared they were for university.

c. Nonetheless, there is no uniformity among visible minorities when they examine how prepared they had been for university. For example:

(1) As a group Blacks believe that they had been most prepared for university.
(2) More Blacks and students of European origin than other students believed that they had no difficulty in writing English.
(3) The highest self-assessed competency ratings were given by Black students. (Remember they were asked to compare themselves to other students at their level.)
(4) Students of Chinese ancestry were least likely to say that they had been academically and emotionally prepared for university.

Anticipated Problems

That students enter university with anxieties regarding various aspects of their upcoming university experience is self-evident. The problems anticipated by students in September, and reports of problems actually encountered over the first year as measured in the March survey, are outlined in Table 2.

Minority and Race Differences in September

While in September only a minority of students believe that they will encounter difficulty in making friends in the university context, there are slight yet statistically significant differences based on minority status: 21% of minority compared to 15% of non-minority students anticipate problems in this area. Also, there are statistically significant differences based on race. Although the differences among Blacks, and students of East Indian, 'other', and European origins are slight, with 12%, 16%, 19%, and 14% respectively anticipating problems in making friends, a large 36%

Table 2: Anticipated Problems (Sept) and Actual Problems (March)

	Minority Status				Race											
	Visible		Not Visible		Black		East Indian		Chinese		Other		European		Row Total	
	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar
Making Friends*	21% (48)	29% (89)	15% (117)	16% (126)	12% (4)	29% (16)	16% (4)	27% (16)	36% (28)	34% (34)	19% (22)	25% (23)	14% (107)	15% (124)	16% (164)	19% (214)
Having Enough Money**	57% (134)	47% (138)	46% (363)	43% (337)	57% (22)	40% (22)	36% (8)	48% (29)	60% (47)	47% (46)	57% (69)	50% (44)	49% (338)	42% (336)	48% (483)	44% (447)
Getting Good Grades***	64% (150)	36% (110)	50% (398)	26% (207)	57% (22)	27% (15)	67% (15)	38% (23)	72% (56)	41% (41)	65% (78)	35% (32)	49% (368)	25% (207)	53% (538)	28% (318)
Handling Stress****	56% (130)	36% (110)	45% (358)	30% (241)	48% (18)	32% (18)	61% (13)	40% (24)	55% (43)	36% (37)	57% (69)	38% (34)	44% (333)	30% (240)	47% (476)	32% (353)
Finding Job During School*****	40% (87)	50% (105)	30% (212)	35% (208)	48% (16)	36% (13)	19% (4)	38% (16)	49% (32)	64% (43)	36% (42)	51% (32)	29% (197)	35% (208)	32% (290)	39% (313)

* Chi-square sig. .05 level Sept minority and race; March minority and race
** Chi-square sig. .05 level Sept minority and race
*** Chi-square sig. .05 level Sept minority and race; March minority and race
**** Chi-square sig. .05 level Sept minority and race; March race
***** Chi-square sig. .05 level Sept minority and race; March minority and race

BEST COPY AVAILABLE

of students of Chinese origin expressed concerns. In essence, the real difference in terms of anticipated problems in making friends is between students of Chinese origin and all others.

When it came to problems of having enough money to meet expenses, 57% of minority students, compared to 46% of non-minority students, anticipated difficulties. When race is examined, it is evident that students of Chinese origin, 60%, expected the most problems in this area while those of East Indian origin, 36%, expected the fewest. The figures for students of Black, 'other', and European backgrounds who felt that money would be a problem were 57%, 57%, and 49% respectively. For both minority status and race differences are statistically significant.

In terms of anticipating problems in getting good grades, in September, 64% of minority students, and 50% of non-minority students, registered concern. Differences are statistically significant. If race is examined, however, it can be seen that there is considerable variation on this dimension. For example, 72% of students of Chinese origin expect problems in getting good grades compared to only 49% of students of European ancestry. Fifty seven percent of Blacks, 67% of students of East Indian origin, and 65% of 'other' students also anticipated difficulties with grades. Differences based on race are statistically significant.

Variation in anticipated problems in handling stress by minority status is also statistically significant: 56% of minority students, compared to 45% of non-minority students worried over how they would cope with stress. When race is examined, it can be seen that more students of East Indian origin than any other, 61%, were concerned with coping with stress. Students of European origin, 44%, were least concerned. Following closely were Black students, 48% of whom anticipated problems with stress. Figures for students of Chinese and 'other' origins are 55% and 57%. Once again, differences based on race are statistically significant.

Forty percent of minority students, compared to only 30% of non-minority students, were worried in September over finding a part-time job. Such differences are statistically significant. Based on race, the most worried were students of Chinese origin and Black students: 49% and 48% respectively felt that getting a part-time job would be a problem. By way of comparison, least concern with finding a part-time job was expressed by students of East Indian origin only 19% of whom stated that they were worried. Thirty six percent of 'others' and 29% of students of European origin also felt that getting a part-time job would be problematic.

Minority and Race Differences in March

In September a disproportionate number of minority students were concerned with making friends. In March minority students indicated that they actually had more difficulty than non-minorities in making friends: while 29% of minorities had difficulties in this area, the number of non-minorities who had similar problems was only 16%. Differences are statistically significant. When race is considered, it is evident that students of Chinese origin, 36%, actually had the greatest difficulty in making friends. Students of European origin, 15%, had the least difficulty in

this area. Twenty nine percent of Black students, 27% of East Indian students, and 25% of 'other' students also had difficulty. Differences among groups are statistically significant.

While in September there had been differences based on minority status regarding anticipated problems in having enough money, the March data indicate that differences between minorities and non-minorities in this regard, with 47% and 43% respectively admitting to problems, are slight and not statistically significant. Similarly, despite fluctuations from one racial group to the other, differences are not statistically significant. In essence, the experience of having or not having enough money did not differ significantly from group to group.

There were statistically significant differences, however, when it came to actual problems in getting good grades. Thirty six percent of minorities, compared to 26% of non-minorities reported difficulties in this area. Most difficulty was encountered by students of Chinese origin, 41% of whom had problems. Least problems were reported by those of European ancestry, only 25% of whom had difficulty. Problems were encountered by 27% of Blacks, 38% of East Indians, and 35% of 'others'. Differences are statistically significant.

In September a disproportionate number of minority students anticipated problems in handling stress; however, table figures indicate that in March there are no statistically significant differences based on minority status when it comes to having had problems in handling stress. Thirty six percent of minority and 30% of non-minority students had difficulty in this regard. If race is examined, however, it is clear that students of East Indian, Chinese and 'other' origin, with 40%, 36%, and 38% stating that they had problems in handling stress, had a slightly more difficult time than Black students and those of European origin only 32% and 30% of whom reported difficulties. These differences are statistically significant.

The September expectation of minority students that they would have problems in terms of a part-time job were borne out by experience. In March, 50% of minority students, and 35% of non-minority students, indicated that finding work had been problematic. Moreover, the differences are statistically significant. Finding work was particularly hard for students of Chinese origin, 64% of whom reported problems. (Recall that students of Chinese origin also earned the least money over the previous summer.) Least difficulties were found by students of European, Black, and East Indian origin with 35%, 36%, and 38% respectively indicating that finding part-time work had been problematic. A slightly higher number of 'others', 51%, also found finding work a problem. Differences are statistically significant.

Conclusion

In the previous section it was shown that over the course of the first year differences based on minority status and race emerged in terms of assessments of how prepared individuals had been for university. While there were fluctuations from one dimension to the next and among racial groups, between September and March, it was possible to detect for groups other than Blacks a widening gulf that disadvantaged students of minority status.

In terms of anticipated and actual problems related to the university experience, however, minority students initially tended to expect more difficulties than non-minority students to begin with. The March data indicate that in general the experience of minority students matched their expectations. When finer distinctions based on race were examined, though, while students of European origin tended to have less problematic first years than particularly Chinese students, European origin students did not have the least problems in all areas. Also, the differences between/among European ancestry students and some others, such as Blacks, were not always large.

Institutional Expectations and Experiences

In previous sections attention has focused on individual assessments of preparation for university and problems that individuals anticipated over the course of the first year. In this section we will deal with various expectations students have of the institution and the types of interactions they anticipate with other students and faculty. Most important in this regard are expectations relating to the racial dimension of interactions. Although their inclusion in this section is arbitrary, expectations regarding the variety of perspectives that will be advanced in the classroom and grades will also be dealt with.

Minority and Race Differences in September

From the data summarized in Table 3 it can be seen that the expectation that York would be friendly to minorities was more important to minority students in their decision to enrol at York than it was to non-minorities. While 47% of minorities stated that York's reputation influenced their decision to enrol, only 21% of non-minorities made a similar comment. Differences on this dimension are statistically significant. When race is considered, it is evident that York's reputation for being friendly to minorities was less important to students of East Indian origin than to other students of non-European background. Once again, differences are statistically significant.

When asked if they thought visible minority students *should* be treated the same way by students, staff, and faculty, 96% of minorities and 97% of non-minorities responded in the affirmative. Data on race indicate few differences from one group to another along this dimension. These findings indicate a great commitment on the part of incoming students to racial equality.

This commitment aside, table data indicate significant differences exist regarding the expectation that minorities *would* be treated equally. While 87% of non-minorities expected equal treatment for minorities, the same expectation was shared by only 72% of minorities. Data on race are consistent with this finding. The percentages of Black, East Indian, Chinese, and 'other' origin students who expect equal treatment are comparable; correspondingly, the expectations of

Table 3: Institutional Expectations (Sept) and Experiences (March)

	Minority Status				Race											
	Visible		Not Visible		Black		East Indian		Chinese		Other		European		Row Total	
	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar	Sept	Mar
Important York Friendly Minorities*	47% (104)		21% (140)		49% (17)		39% (8)		49% (34)		43% (51)		19% (125)		27% (234)	
Minority Should Be Equal**	96% (225)	94% (284)	97% (761)	99% (791)	95% (36)	93% (51)	99% (21)	94% (50)	92% (72)	92% (92)	97% (116)	98% (88)	97% (726)	99% (794)	97% (972)	98% (1083)
Minority Will Be/Were Equal***	72% (158)	73% (184)	87% (656)	91% (605)	75% (26)	86% (38)	71% (14)	74% (41)	73% (55)	64% (55)	75% (85)	76% (54)	87% (626)	91% (607)	84% (805)	86% (795)
Variety Perspectives In Class****		64% (161)		66% (444)		74% (39)		65% (38)		49% (37)		71% (49)		66% (446)		65% (610)
Faculty Will Be/Were Helpful*****	26% (51)	13% (35)	30% (204)	22% (164)	32% (10)	13% (6)	20% (4)	14% (8)	43% (29)	13% (11)	21% (21)	13% (10)	29% (187)	22% (166)	29% (252)	20% (201)
Anticipated/Actual Faculty Contacts Per Month!	2.3 (103)	3.6 (306)	2.2 (401)	3.1 (808)	2.3 (18)	2.7 (56)	2.7 (8)	3.8 (62)	2.7 (34)	4.3 (102)	2.2 (53)	3.0 (91)	2.2 (386)	3.1 (811)	2.2 (499)	3.2 (1121)
Expected/Actual Grade***																
B or Less	30% (70)	83% (205)	39% (304)	70% (495)	21% (8)	87% (43)	19% (4)	81% (44)	34% (27)	79% (70)	34% (41)	85% (49)	39% (287)	70% (494)	37% (366)	73% (700)
B+	30% (70)	11% (28)	33% (259)	18% (129)	36% (13)	10% (5)	27% (6)	9% (5)	28% (22)	10% (9)	31% (37)	15% (8)	33% (249)	18% (129)	33% (326)	16% (157)
A and Above	40% (92)	6% (15)	28% (219)	12% (87)	43% (16)	3% (1)	54% (12)	9% (5)	38% (29)	11% (10)	34% (40)	1% (1)	28% (207)	12% (87)	36% (305)	11% (104)

* Chi-square sig. .05 level Sept minority and race
** Chi-square sig. .05 level March minority
*** Chi-square sig. .05 level Sept minority and race; March minority and race
**** Chi-square sig. .05 level race
***** Chi-square sig. .05 level March minority and race
! F sig. .05 level Sept race .

students of European origin are higher. In essence, differences between non-European groups regarding the treatment they might expect are minor. Whether this expectation pre-determined the ways in which various aspects of the university were experienced is difficult to determine.

There are no significant differences based on minority status regarding the expected helpfulness of faculty. Moreover, expectations of these institutional representatives are low: only 26% of minorities and 30% of non-minorities expected faculty to be helpful. When race is examined, although differences are not statistically significant, it is obvious that the expectations of students of Chinese origin are higher than those of all other groups.

Similarly, when asked how many out-of-class contacts with faculty of ten or more minutes per month students expected there are no differences based on minority status. With race, differences are statistically significant. The expectations of both students of East Indian and Chinese origin, each of whom expect 2.7 contacts per month, are higher than those of all other groups. Lowest expectations are held by students of European origin - 2.2 contacts per month.

When expected grades are examined, significant differences can be seen based on minority status. Overall, the first year grade expectations of minorities are higher than those of non-minorities. For example, while 40% of minorities expect a final grade of A and above, only 28% of non-minorities have a similar expectation. Statistically significant data on race indicate that mark expectations are not equal among racial groups. For example, the highest expectations are held by students of East Indian origin: 54% expect marks of A and above. Forty three percent of Black students expect similar marks. The expectations of students of Chinese and 'other' origin are 38% and 34% respectively. Lowest expectations of all are held by those of European origin, only 28% of whom expect to get A or better.

Overall, the data suggest somewhat different expectations on the part of minority students as compared to non-minority students. Expectations of institutional friendliness influenced minorities' choice of universities to a greater extent than for non-minorities. While they obviously shared with non-minorities a commitment to equal treatment, far fewer minorities actually expected that they would be treated equally. In terms of faculty being helpful, and out-of-class contacts with faculty, the expectations of both groups were equally low. With regard to marks, however, the expectations of minorities were higher than those of non-minorities. Moreover, there were considerable differences among non-European groups in this regard.

Minority and Race Differences in March

Surprisingly, in March, more non-minorities than minorities believed that minorities should be treated equally. Moreover, differences are statistically significant. While it is tempting to treat this finding as a statistical anomaly, statistically significant data on race show students of Black, East Indian, and Chinese origin are slightly less supportive of equality than those of 'other' and European origin. These enigmas aside, the overall level of support for equality remains extremely high with 98% of all students believing that minority students should be treated equally.

Whereas 91% of non-minorities believed that minorities had been treated equally over the previous academic year, this belief was shared by only 73% of minority students. Moreover, there are significant differences based on race. Among students of other than European origin, 86% of Black students believe that minorities were treated equally. By way of comparison, only 64% of students of Chinese origin made similar statements. The percentages of students of East Indian and 'other' origins who believed that minorities had received equal treatment were 74% and 76% respectively. Clearly, students of Chinese origin, by a considerable margin, believe that minorities were treated less equally by other students, faculty, and staff. Differences among groups should not mask the fact that in each group the vast majority believe that minority students were treated equally.

At York as on many other North American campuses, Eurocentrism and sexism in the curriculum are important issues. As a result, in the March survey, students were asked to comment on the degree to which, where applicable, a variety of perspectives were put forward in their courses. Data presented in the table indicate that roughly equal percentages of both minorities and non-minorities - 64% and 66% respectively - agree that courses offered sufficient variety in perspectives. When the same issue is examined by race, interesting and statistically significant differences emerge. Seventy four percent of Black students, more than for any other group, agree that a variety of perspectives were offered in their courses. By comparison, only 49% of students of Chinese origin had a similar view. The comparable figures for individuals of East Indian, European, and 'other' origins are 65%, 66%, and 71%. On the basis of these data it can be concluded that Blacks and 'others' more than students of European origin believe that they are being exposed to a variety of perspectives in classes. The feeling of students of East Indian origin on this matter is the same as that of European origin students. Only students of Chinese descent are less satisfied than students of European ancestry with perspectives provided in the classroom.

Although in the September survey there were no statistically significant differences based on minority status regarding expectations of faculty helpfulness, by the March survey more non-minorities - 22% - than minorities - 13% - believed faculty had been helpful; in addition, differences are statistically significant. With respect to race, although differences are significant, differences among non-European racial groups are minor. The main difference occurs between students of European origin and all others. Overall, only 20% of students found faculty to be helpful over the first year.

While minority students had more faculty contacts than non-minorities, differences are not statistically significant. Similarly, although different racial groups report different levels of contact, differences are not statistically significant.

Whereas in September it was seen that the expectations of minorities with regard to marks were higher than those of non-minorities, it is clear that the marks attained by minorities, as obtained from administrative records, were lower than those of non-minorities. For example, 12% of non-minorities as compared to 6% of minorities achieved marks of A and above. At the

other end of the scale, 70% of non-minorities compared to 83% of minorities received grades of B or less. Moreover, differences are statistically significant. Data on race show differential rates of achievement on the part of non-European groups. For example, only 1% of students of 'other' origins received A or higher. By way of comparison, A or above was received by 11% of students of Chinese origin. Nine percent of East Indians and 3% of Blacks also ended up with a first year average of A or above.

Conclusion

Data presented in this section indicate a number of things regarding students' institutional expectations and experiences. While minority students to a degree view York as friendly to minorities and along with majority students believe that minorities should be treated equally, more minorities than non-minorities believe that equality did not exist in practice. However, it is important to note that there are important differences among racial groups on this issue: large percentages of Blacks believe that minorities have been treated equally; far fewer students of Chinese origin share this view. With regard to other institutional expectations and experiences, such as the helpfulness of faculty, September expectations of all groups were similar. By March, however, non-minorities more than minorities reported that they had found faculty helpful. Experiences with out-of-class contact with faculty were more uniform. When marks are examined, although the initial expectations of minorities were higher than those of non-minorities, the achievement levels of particularly Blacks and those of 'other' origin are comparatively low. More of this will be said later.

Social and Academic Involvement

Social Involvement

Data on social involvement are summarized in Table 4. The first thing of note is the statistically significant difference between minorities and non-minorities with respect to participation in campus clubs and/or organizations. On average, visible minority students participated in .61; non-minority students in .47. Differences based on race are not statistically significant.

While there are no differences based on minority status or race with respect to the number of sports activities participated in, minority students watched fewer sports over the academic year than non-minorities. The respective figures for this dimension are .53 and .80. Again, race based differences are not statistically significant.

Table data indicate that while non-minorities make on average .63 pub visits per week, the figure for minorities is .49; however, differences are not statistically significant. Race based differences are statistically significant. Whereas students of East Indian origin make on average

Table 4: Social Involvement

	Minority Status		Race					
	Visible	Not Visible	Black	East Indian	Chinese	Other	European	Row Total
No. Clubs Organizations*	.61 (304)	.47 (808)	.70 (56)	.72 (60)	.49 (101)	.63 (91)	.47 (809)	.51 (1117)
No. Sports Activities Participated	.37 (305)	.51 (806)	.43 (56)	.34 (60)	.25 (103)	.51 (91)	.50 (807)	.47 (1116)
No. Sports Activities Watched*	.53 (307)	.80 (807)	.93 (56)	.29 (61)	.18 (103)	.82 (91)	.80 (808)	.73 (1118)
Weekly Pub Visits**	.49 (302)	.63 (801)	.40 (56)	.85 (62)	.16 (99)	.61 (90)	.63 (802)	.59 (1109)
No. New Friends	13.4 (293)	14.5 (778)	13.6 (56)	16.0 (58)	11.9 (96)	12.7 (87)	14.5 (777)	14.2 (1074)
Hrs. Week With New Friends***	2.5 (280)	3.4 (721)	1.7 (47)	2.7 (56)	1.7 (95)	3.7 (85)	3.4 (722)	3.1 (1005)
% Friends Visible Minorities***	60.7% (297)	29.8% (757)	65.5% (55)	62.1% (60)	58.1% (96)	58.4% (90)	29.9% (757)	38.6% (1058)

* F sig. .05 level minority
** F sig. .05 level race
*** F sig. .05 level minority and race

.85 pub visits per week, students of Chinese origin make only .16. The visits of 'others' and students of European origin are roughly the same - .61 and .63 respectively. On average Black students make .40 visits per week.

Although making new friends was identified, in an earlier section, as a problem for a number of students, differences based on minority status and race regarding the number of new friends made since September are not statistically significant. On average students made 14.2 new friends since the beginning of school.

Differences emerge when the amount of time spent with new friends is examined. While non-minorities report 3.4 hours per week associating with new friends, the figure for minorities is only 2.5 hours a week. Racial variations are even wider. For example, Blacks and students of Chinese origin spend only 1.7 hours per week with new friends whereas 'others' and students of European origin report 3.7 and 3.4 hours per week respectively. Students of East Indian origin average 2.7 hours per week with friends met since September.

Not surprisingly, data in Table 4 also show that visible minority students have friends who are also visible minorities to a greater extent than non-minorities. The former report that 60.7% of their friends (not those made in university since September) belong to visible minority groups; the latter only 29.8%. When race is examined it is seen that Blacks have more visible minority group friends - 65.5% - than any other racial group; however, figures for students of East Indian, Chinese, and 'other' origins are not much lower than those for Blacks. Understandably, the largest difference is between those of European origin and all others. Figures such as these may indicate a considerable degree of self-imposed segregation on the part of students of various origins. For both minority status and race differences are statistically significant.

Academic Involvement

Figures pertaining to academic involvement are outlined in Table 5. With respect to out-of-class contacts with faculty of ten minutes or more per month, differences based on minority status and race are not statistically significant and the average number of contacts is 3.2.

Although differences are small, minority students have significantly more out-of-class contacts per month with teaching assistants and lab demonstrators than non-minority students: 2.3 as compared to 1.9 contacts. In addition, differences based on race are statistically significant. The greatest number of contacts, 3.1 per month, is had by students of East Indian origin; the least, 1.9, by students of European background. Differences among all groups, however, are small. It might be noted that students have more out-of-class contact with their professors than with teaching assistants and lab demonstrators - 3.2 compared to 2.0 contacts per month.

Statistically significant differences based on minority status and race also exist with regard to staff contacts. Minority students report an average of 2.4, non-minority students only 1.7. Among minorities students of East Indian background report the greatest number of contacts -

Table 5: Academic Involvement

	Minority Status		Race					
	Visible	Not Visible	Black	East Indian	Chinese	Other	European	Row Total
Faculty Contacts Month	3.6 (306)	3.1 (808)	2.7 (56)	3.8 (62)	4.3 (102)	3.0 (91)	3.1 (811)	3.2 (1121)
TA/Demonstrator Contacts Month*	2.3 (302)	1.9 (796)	2.0 (56)	3.1 (61)	2.1 (100)	2.2 (89)	1.9 (799)	2.0 (1104)
Staff Contacts Month*	2.4 (298)	1.7 (807)	1.7 (55)	2.6 (60)	1.7 (99)	2.1 (89)	1.6 (809)	1.7 (1112)
Academic Activities 2 Months	1.0 (296)	1.0 (795)	1.0 (55)	1.2 (60)	0.9 (100)	0.9 (87)	1.0 (797)	1.0 (1097)
Hrs/Week on Campus	23.8 (293)	24.4 (781)	23.6 (52)	25.2 (60)	22.1 (100)	25.2 (85)	24.4 (787)	24.3 (1080)
Current Courses	4.2 (308)	4.2 (811)	4.0 (57)	4.2 (61)	4.2 (104)	4.1 (91)	4.2 (812)	4.2 (1124)
Courses Dropped	0.6 (309)	0.5 (803)	.57 (57)	.42 (62)	.67 (104)	.55 (91)	.49 (803)	.51 (1117)
% Lectures Attended	91.6% (308)	90.8% (807)	90.3% (56)	95.3% (62)	90.5% (104)	91.1% (91)	90.8% (808)	91.1% (1121)
% Tutorials/Labs Attended*	85.2% (300)	90.8 (784)	88.9% (55)	91.4% (61)	79.2% (101)	86.2% (88)	90.8% (785)	89.3% (1089)
Hrs/Week on Studies Out of Class	22.0 (284)	23.5% (772)	21.9 (52)	23.6 (57)	19.8 (99)	23.6 (79)	23.6 (775)	23.0 (1062)

* F sig. at .05 level

2.6 - and students of European origin the least - 1.6.

For participation in non-mandatory academic activities, the number of hours per week spent on campus, the number of current courses enrolled in, the number of courses dropped, the percentage of lectures attended, and the number of hours per week spent on studies outside of class, differences based on minority status and race are not statistically significant. In essence, over a wide range of academic involvement activities students participate more or less equally.

An exception in this regard is the percentage of their tutorials or labs in which students participate. In this instance minorities only attend 85.2% of the time; non-minorities show up for 90.8% of their tutorials/labs. When race is examined it is seen that students of Chinese origin attend only 79.2% of their tutorials and labs. Differences among all other groups are slight.

A Summary Measure

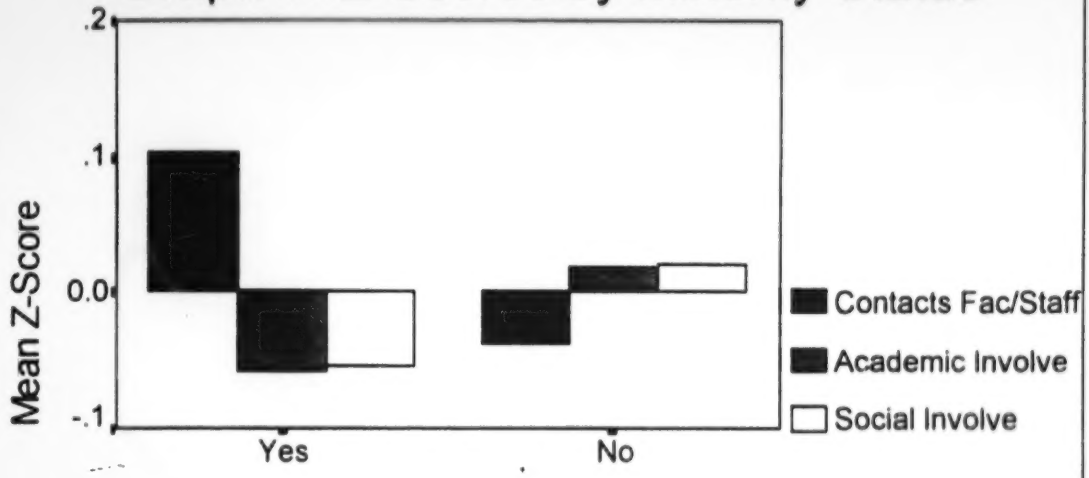
From the foregoing it is difficult to obtain an overview of the amount of social and academic involvement on the part of students. As a result, because of the theoretical importance of each, summary measures were constructed that would enable a comparison both among groups of students and among different types of activities. In brief, mean z-scores were calculated for all of the variables with the exception of percent of friends who are visible minorities in Table 4 and for all of the variables in Table 5. Z-scores have a mean of zero and, for all practical purposes, high and low scores of +3 and -3 respectively.

Mean z-scores based on minority status are summarized in Graph 1. The graph indicates that overall visible minority students have more contacts with faculty, teaching assistants and lab demonstrators, and staff, than non-minority students. Moreover, differences for the F statistic are significant at the .05 level. Overall, however, non-minorities have more academic involvement than minority students. Once again, the differences are statistically significant. Although non-minorities have more social involvement than minorities, differences are not statistically significant. On the basis of these data it is difficult to argue that overall minority students at York University are any more, or any less, involved than non-minority students.

Differences based on race are summarized in Graph 2. Students of East Indian background have far more contact with faculty, teaching assistants, and staff than any other group. Equally apparent is the fact that Blacks and students of European descent have less than average contacts. Differences along this dimension are statistically significant.

When academic involvement is examined it is evident that once again students of East Indian origin are at the top. By way of contrast, students of Chinese ancestry are the least involved academically. Blacks and 'others' are somewhat less involved than average while students of European origin have slightly higher than average involvement. Once again, these differences are statistically significant.

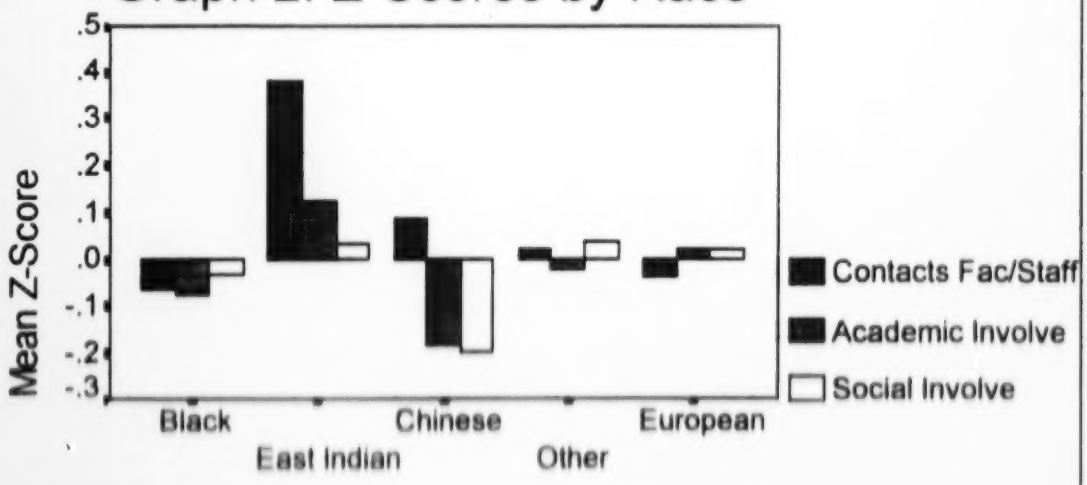
Graph 1: Z-Scores by Minority Status



Visible Minority

F sig. .05 level Contacts, Academic Involvement

Graph 2: Z-Scores by Race



Race

F sig. .05 level all variables

Statistically significant differences also exist with respect to social involvement. Students of East Indian and 'other' origins are most involved. Those of Chinese background and, to a lesser degree, Blacks are the least involved. The social involvement of students of European background is slightly above average.

Perhaps the clearest observation to emerge from Graph 2 is that overall students of East Indian origin are the most involved in York University. In addition, along two dimensions, those of Chinese ancestry are the least involved. Those of European and 'other' backgrounds are involved at an average level while the involvement of Blacks is slightly below ave.age. Figures such as these make it difficult to argue that students of European origin are advantaged in terms of various types of involvement.

First Year Outcomes

In part, first year outcomes can be viewed as the result of the university experience, various aspects of which have been examined in previous sections. As a result, information collected on outcomes is extremely important.

In the March survey information was collected on a number of outcomes; however, analysis in this study will be restricted to three measures collected in the survey (self-assessed intellectual development, increase in knowledge, and likelihood of returning to York) and one (final marks adjusted for Ontario Academic Credit (OAC) marks) obtained from the survey and administrative records. Information on these measures is summarized in Table 6.

As can be seen from Table 6, only 62% of minority students, compared to 74% of non-minorities, agreed that they had developed intellectually in their first year at university. Differences based on minority status for this measure are statistically significant. When race is examined, however, it can be seen that there are considerable differences within the minority group for this measure. Students of European origin and Blacks agree that they have developed intellectually - 75% and 74% respectively - to a far greater degree than students of East Indian and Chinese backgrounds - 53% and 52%. Seventy percent of 'others' also believe that they have developed intellectually over the first year. These differences based on race are statistically significant and suggest that the previously noted differences between minorities and non-minorities on this dimension are a function of the low percentages of East Indians and Chinese origin students who believe that they have experienced intellectual development.

Statistically significant differences also exist between minorities and others in terms of the number who agree that independent of marks their knowledge increased over the first year: 76% of minorities compared to 85% of non-minorities agree that their knowledge increased. Once again, however, if race is examined, it can be seen that such differences are a result of relatively low levels of agreement on the part of students of East Indian and Chinese origin, only 71% and

Table 6: Outcomes of First Year

	Minority Status		Race					
	Visible	Not Visible	Black	East Indian	Chinese	Other	European	Row Total
Agree Developed Intellectually*	62% (172)	74% (587)	74% (39)	53% (32)	52% (44)	70% (60)	75% (590)	71% (765)
Agree Increased Knowledge*	76% (228)	85% (687)	80% (44)	71% (43)	73% (72)	78% (70)	86% (692)	83% (921)
Extremely Likely Return York	61% (179)	64% (509)	58% (32)	70% (42)	57% (56)	64% (54)	64% (507)	63% (691)
GPA Adjusted for OAC Marks!	5.09 (216)	5.47 (632)	4.97 (39)	5.21 (48)	5.08 (80)	5.12 (50)	5.46 (631)	5.37 (848)

* Chi-square sig. .05 level minority and race
! F sig. .05 level for main effects and covariate

73% of whom agree that their knowledge has increased. By way of contrast, 86% of students of European origin feel that their knowledge has increased. Eighty percent of Blacks and 78% of 'others' also believe that their knowledge has increased. Differences based on race are statistically significant.

In terms of future intentions, it is clear that the intention to return to York for the second year of studies varies by neither minority status nor race. Overall, 63% of students state that it is extremely likely that they will return to York.

Of all outcome measures, first year marks as obtained from administrative records vary consistently in terms of minority status and race when controls are made for OAC marks. Whereas the first year grade point average (GPA) for minorities is 5.09, it is 5.47 for non-minorities. Differences are statistically significant. If race is examined it can be seen that students of European origin achieve the highest GPAs, 5.46, Black students the lowest, 4.97. In ascending order students of Chinese, 'other', and East Indian origins score 5.08, 5.12, and 5.21. While differences based on race are statistically significant, it must be emphasized that differences between the highest and lowest group translate into only a 2% difference - 67.6% for Blacks compared to 69.8% for students of European origin.

Conclusion

It is fair to summarize that students of East Indian and Chinese origin feel that they have gained less in terms of intellectual development and an increase in knowledge than students from Black, 'other', and European backgrounds. In terms of returning to York differences that exist on the basis of minority status and race are not significant. When first year GPAs are examined, however, it is clearly that students of European background score higher than all others.

Satisfaction with University Life

Given the different experiences based on minority status and/or race discussed so far, how satisfied are students with various aspects of the first year at York? Answers are provided in Table 7.

Overall, non-minorities - 68% - are statistically significantly more satisfied with their overall academic programmes than minorities - 58%. Differences based on race are not significant for this dimension. In addition, there are no statistically significant differences based on either minority status or race when it comes to satisfaction with faculty contact, teaching assistant or lab demonstrator contact, or staff contact. (It will be recalled from an earlier section that there were considerable differences in the actual amount of contact based on both minority status and race.)

With regard to satisfaction with the quality of instruction statistically significant

Table 7: Satisfaction With Various Aspects of University Life

	Minority Status		Race					
	Visible	Not Visible	Black	East Indian	Chinese	Other	European	Row Total
Academic Program*	58% (162)	68% (517)	62% (33)	59% (33)	58% (53)	55% (47)	68% (517)	65% (683)
Faculty Contact	21% (61)	25% (195)	19% (10)	21% (11)	23% (22)	20% (17)	25% (195)	24% (256)
TA/Demonstrator Contact	27% (76)	33% (250)	31% (16)	32% (18)	24% (22)	24% (20)	33% (251)	31% (328)
Staff Contact	40% (110)	35% (245)	42% (20)	38% (19)	40% (40)	38% (31)	36% (248)	37% (358)
Course Content	53% (163)	56% (445)	62% (35)	50% (30)	49% (51)	54% (48)	56% (448)	55% (613)
Instruction*	42% (128)	49% (398)	47% (27)	45% (28)	41% (42)	38% (35)	49% (400)	47% (531)
Student Services**	40% (79)	51% (231)	41% (14)	28% (11)	41% (26)	47% (29)	51% (231)	48% (311)
Grades**	25% (302)	43% (344)	37% (20)	23% (14)	23% (23)	23% (20)	43% (347)	38% (424)
Social Life**	49% (146)	64% (508)	47% (25)	40% (24)	52% (53)	54% (47)	65% (510)	60% (660)

* Chi-square sig. .05 level minority
** Chi-square sig. .05 level minority and race

differences exist between minorities and non-minorities: 42% of the former compared to 49% of the latter express satisfaction with this item. Race based differences are not statistically significant.

For satisfaction with student services statistically significant differences also exist on the basis of minority status and race. Whereas 49% of non-minorities are satisfied with such services, the figure for minority students is 40%. If race is examined it can be seen that considerable differences exist among groups. For example, only 28% of students of East Indian origin are satisfied with student services as compared to 51% of students of European background.

As previously noted, difference in first year marks vary by minority status and race. To a degree, satisfaction with marks follows a similar pattern. Whereas 43% of non-minorities are satisfied with their marks, only 25% of minorities are satisfied. (It might also be remembered that minority expectations with regard to marks were far higher than those of non-minorities in the September survey.) These differences are statistically significant. Similarly, the satisfaction with marks of students of European background - 43% - is far higher than that of individuals of East Indian, Chinese, and 'other' origins - 23% for each. A higher percentage of Blacks - 37% - express satisfaction with their marks.

Finally, table data also indicate that non-minorities are significantly more satisfied than minorities with their social lives - 64% compared to 49%. Breakdowns by race indicate that students of East Indian origin and Blacks, 40% and 47% of whom express satisfaction with their social lives, are less satisfied than particularly students of European origin. Of this latter group, 65% say they are satisfied. Students with Chinese and 'other' backgrounds fill an intermediate position with regard to satisfaction with social life.

Conclusion

Overall, table data indicate that there are no significant differences based on minority status or race when it comes to student satisfaction with faculty, teaching assistant and lab demonstrator, and staff contact. Nor do students differ in terms of satisfaction with course content. Nonetheless, minority students are less satisfied than non-minority students when it comes to the overall academic program, the quality of instruction, student services, grades, and social life.

Relations Among Environmental Factors (Experiences) and Outcomes

So far in this study a number of things have been established.

a. Although York students in general do not come from affluent backgrounds, the families of non-minority students are better off financially than the families of minority students.

b. Student expectations and experiences in their first year vary by minority status and race; however, differences are not always in favour of students of European origin.

c. Contact with faculty, teaching assistants and lab demonstrators, and staff; aspects of academic involvement; and social involvement, also vary by minority status and race. Once again, though, differences do not always favour students of European origin.

d. While certain outcomes of the first year experience do not always favour students of European background, those of European origin do achieve higher marks than individuals who can be classified as minority students.

e. For satisfaction with many aspects of university life, no differences can be found that are based on minority status and/or race. For some aspects of university life, however, students of European origin appear to be more satisfied than other students.

What has not been established is the potential relationship among background characteristics, university experiences, race, and specific outcomes of the university experience as identified earlier in the discussion of the 'outcomes model'. Attention will now focus on the results of a series of regression analyses designed to deal with this problem.

Variables in the analyses will not include all studied in preceding sections. Instead, attention will focus on those that are consistent with the theoretical perspective, and empirical findings relating to, in particular, academic and social involvement. Variables included in the regressions, and the order of block entry, are listed below. Within blocks a stepwise procedure with pairwise deletion was used. The results of procedures using pairwise deletion and mean substitution for missing values are discussed later.

PRE-ENTRY (BACKGROUND) CHARACTERISTICS

Father's and mother's education (0 = not completed college/university; 1 = completed college/university), OAC marks in percentages; and gender (0 = female; 1 = male).

ENVIRONMENTAL FACTORS (UNIVERSITY EXPERIENCES)

a. Classroom Characteristics: satisfaction with instruction (0 = not satisfied, 1 = satisfied); write English with no problem[3] (0 = no, 1 = yes); variety of

---

perspectives presented in class (0 = no, 1 = yes); relevance of class topics to future career success (0 = no, 1 = yes).

b. Social and Academic Involvement: contacts (average z-scores for contacts with faculty, teaching assistants and lab demonstrators, and staff); academic involvement (average z-scores for academic involvement); and social involvement (average z-scores for social involvement).

RACE

Black (0 = no, 1 = Black); East Indian (0 = no, 1 = East Indian); Chinese (0 = no, 1 = Chinese) 'other' (0 = no, 1 = 'other'). European is the reference category.

OUTCOMES

Developed intellectually and increased in knowledge (1 = low to 5 = high); likelihood of returning to York (1 = low to 6 = high); GPA (1 = low to 10 = high).

The decision of which variables to include in the analyses was based on a considerable amount of research that has been carried out in the realm of university outcomes as discussed earlier, the fact that existing research on science students at York has shown that classroom activities have important implications for a number of first year outcomes, and logic.

INTELLECTUAL DEVELOPMENT

The results of the final equation of the regression analysis in which the student's self-assessed intellectual development was the outcome are summarized in Table 8. Table figures indicate that students' background characteristics do not affect the extent to which they develop intellectually. Among environmental factors classroom characteristics, particularly satisfaction with instruction, have the greatest influence on intellectual development. In total, satisfaction with instruction, having course topics that are career relevant, being presented with a variety of perspectives, and having no problem writing English explain 13% of the total variance.

While academic involvement and contacts with faculty etc. also affect intellectual development, the effect is minor. Both variables combined only contribute an additional 1% to the explained variance.

Perhaps most important in terms of the objective of this study is that being East Indian in origin has a negative effect on self-assessments of intellectual development. Although the effect

---

[3] Being able to write with no problem is treated as a classroom characteristic rather than a pre-entry characteristic because once exposed to the university environment, many students who formerly had confidence in this regard changed their minds. In essence, the judgements relating to ability to write in English is an emergent phenomenon.

is small - it contributes only 1% to the total variance - it indicates that even when the effects of the preceding variables listed in the table are taken into consideration, students of East Indian origin believe that they have developed less intellectually than individuals of European origin. Unfortunately, the data do not allow explanations of why this is the case.

In total, the variables included in the regression explain 16% of the total variance in intellectual development.

Increased Knowledge

Data outlined in Table 9 once more point to the importance of classroom characteristics in explaining particular outcomes. In this instance, being satisfied with instruction, being presented with a variety of perspectives, and being exposed to career relevant topics in class explain 12% of the variance in increased knowledge.

Table data also indicate that after the effects of the previous three variables have been taken into consideration, being of Chinese origin has a negative effect on self-assessments of intellectual development. The variance explained by this variable, however, is only 1%. As was the case for Table 8, it is difficult to explain why this is so.

Return to York

As can be seen from the figures in Table 10, a background variable, having a mother who completed college or university, has a positive, but small impact (it only explains 1% of the variance) on the intent to return to York University. Once again the environmental variables, being exposed to career relevant topics in class and being presented with a variety of perspectives in class, affect the outcome; however, in combination they only explain 1% of the variance. Indeed, all of the variables in the equation only explain 2% of the total variance. It might be noted, however, that no race variables have an impact on the likelihood of returning to York.

First Year GPA

As noted earlier, there are very slight yet statistically significant differences in GPA based on race. As seen in Table 11, for first year GPA as obtained from administrative records, the background variable OAC average explains 18% of the total variance. A further 1% of total variance is explained by having a father with a college/university education.

Of environmental variables, being satisfied with instruction explains an additional 2% of the variance and academic involvement 3%. While social involvement explains an additional 2% of the variance, its effect is negative. In other words, increased social involvement decreases first year GPA. This was an unexpected finding. Overall, variables in the regression explain 26% of the variance in GPA.

Table 8: Outcome: Developed Intellectually
(Range = 1 to 5; Mean = 3.9; S.D. = .9)

	b	R-square	Beta
Satisfied Instruction	.39	.08	.21
Course Topics Relevant Career	.34	.11	.14
Variety Perspectives in Class	.25	.12	.13
No Problem Write English	.23	.13	.09
Academic Involvement	.20	.15	.11
Contacts Faculty Etc.	.12	.15	.10
East Indian Origin	-.30	.16	-.07
Minimum number cases = 707			
Maximum number cases = 1083			

Table 9: Outcome: Increased Knowledge
(Range = 1 to 5; Mean = 4.2; S.D. = .9)

	b	R-square	Beta
Satisfied Instruction	.34	.07	.19
Variety Perspectives in Class	.32	.11	.17
Course Topics Relevant Career	.29	.12	.12
Chinese Origin	-.23	.13	-.08
Minimum number cases = 707			
Maximum number cases = 1083			

Table 10: Outcome: Return to York
(Range = 1 to 6; Mean = 5.4; S.D. = .9)

	b	R-square	Beta
Mother College/University	.20	.01	.08
Course Topics Relevant Career	.23	.02	.09
Variety Perspectives in Class	.15	.02	.08
Minimum number cases = 707			
Maximum number cases = 1083			

Table 11: Outcome: First Year GPA
(Range = 1 to 10; Mean = 5.5; S.D. = 1.6)

	b	R-square	Beta
OAC Average	.09	.18	.38
Father College/University	.30	.19	.08
Satisfied Instruction	.45	.21	.14
Academic Involvement	.76	.24	.24
Social Involvement	-.39	.26	-.14
Minimum number cases = 707			
Maximum number cases = 1083			

As no race variables entered the regression it can be safely assumed that students of various races do not receive different marks because of race per se. It is more likely that the differences among students of various races in terms of outcomes as observed in Table 8 are a result of different high school marks, fathers' education that might affect the intellectual orientation of the home, satisfaction with instruction, and academic and social involvement.

Other Procedures

In the preceding regressions, pairwise deletion of missing data was used. Slightly different results were obtained when listwise deletion and mean substitution were used. Regressions using each nonetheless led to the inescapable conclusions that classroom characteristics and academic involvement made major contributions to the outcomes under study and race had very little, if any, impact on outcomes. These general conclusions are more important than the impact of any variable in individual regressions.

CONCLUSION

The results of the regressions lead to a number of conclusions:

a. Although in Table 8 it was clear that several outcomes of the first year experience varied somewhat by race, once a number of other possible variables that can affect outcomes have been taken into consideration, race is only significant in explaining self-assessed intellectual development and increases in knowledge. Moreover, the impact of race variables on these two outcomes is minimal and pertains only to students of East Indian and Chinese origin.

b. Findings such as these suggest that if students of different races manifest different outcomes it is because of different levels of achievement in high school, types of classroom experiences, differential problems with writing English, differential rates of contact with faculty etc., and, where appropriate, different rates of academic and social involvement. It is unlikely a result of race per se.

c. Gender has an impact on none of the outcomes under discussion.

d. In terms of interventionist strategies these findings suggest that attention should focus particularly on enhancing the classroom experience and increasing both faculty etc. contact and academic involvement. Steps taken in these directions would be of benefit to all students, independent of race.

The Experiences That Count

From the foregoing regression analyses it was evident that three classroom experience variables - satisfaction with instruction, variety of perspectives presented in class, and presentation of class topics relevant to careers - had an impact on one or more of the outcomes.[4] Similarly, contacts with faculty etc. and academic involvement also had affects on one or more of the outcomes.

In order to determine the overall way in which different racial groups experienced the classroom, z-scores were calculated for each of the three classroom experience variables. The mean z-score for the three variables was then calculated. Next, to summarize contacts with faculty etc. and academic involvement, the z-scores for these two variables were averaged. The distribution for each mean by race is presented in Graph 3.

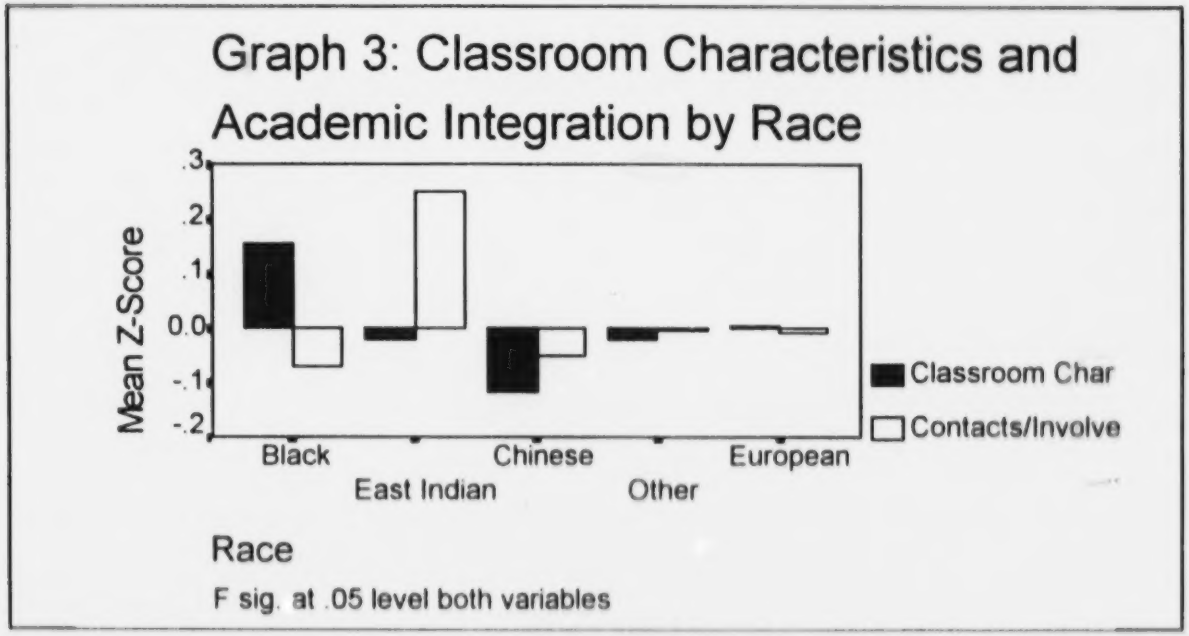
From the graph it can be concluded that the classroom characteristics experienced by Black students were higher than average; however, their contacts/involvement were lower than the mean. By way of comparison, classroom characteristics of students of East Indian ancestry were slightly lower than the mean and contacts/involvement far higher. For students of Chinese descent, both classroom characteristics and contacts/involvement were lower than average. This underlying pattern was evident when the standing of students of Chinese origin was examined in tables discussed earlier. Moreover, the pattern suggests that students of Chinese origin have the most negative experiences. By way of comparison, for students of 'other' and European origin, classroom characteristics and contacts/involvement are more or less similar and about average.

Differences indicate that on important dimensions the first year environment is experienced differently by students of different races, however, with the exception of the negative situation of students of Chinese origin, it is very difficult to provide overall positive or negative characterizations of group experiences. Does, for example, the high classroom characteristics standing of Blacks cancel out their low standing on contacts/involvement? Does the high standing on contacts/involvement cancel out the below average standing on classroom characteristics for those of East Indian ancestry? It is impossible to say.

Despite these ambiguities, the data do suggest that interventions that would improve the classroom experience and increase contacts and promote academic integration would be of benefit, in varying degrees, to students of different racial origins. With regard to this objective a question was asked of students in the March survey that focused on opinions regarding a "compulsory first year credit course that would cover subjects such as: university standards, criteria, and procedures; effective studying; time management; improving writing; stress management; and jobs in the field in which you are majoring." The question was asked because a mounting body of information indicates that such courses both assist individuals in gaining the

---

[4] Having no problems writing in English also had an affect; however, because of its emergent nature, it is not included here.


Graph 3: Classroom Characteristics and Academic Integration by Race
Mean Z-Score
.3
.2
.1
0.0
-.1
-.2
Black
East Indian
Chinese
Other
European
Classroom Char
Contacts/Involve
Race
F sig. at .05 level both variables

most from the classroom experience and in making contacts with faculty and staff (Upcraft and Gardner, 1989). Obviously, measures such as these do not relieve faculty from doing a good job in the classroom in later courses.

Survey data indicate that a majority of minority and non-minority students (59% and 56% respectively) feel that such a course would be a good, or a very good use of time. Among minorities, however, 77% of Black students and 63% of students of East Indian origin support the offering of such a course. Surprisingly, the only group in which fewer than a majority - 45% - favour such a course is students of Chinese origin. Nonetheless, support is sufficiently high in other quarters to suggest that such an option might be tried at York.

Conclusion

The conclusion to this study can be stated very briefly. As in the United States, minority students entering York University come from more financially disadvantaged families than non-minority students. However, in contrast to much of the research carried out in the United States, the experiences of minorities in the first year are not all negative and the experiences of non-minorities are not all positive. Considerable variation exists from experience to experience and from one racial group to the other. In addition, while university experiences have implications for certain first year outcomes, race per se has only a marginal impact on a couple of outcomes. As a result, at least with regard to the first year experience, there is a considerable degree of racial equality in outcomes.

This does not mean that there is no room for improvement. To the degree that, for example, the offering of a variety of perspectives in class contributes to desired outcomes for certain groups, steps should be taken to encourage curricular variety. The same argument can be made for a satisfying instructional experience, being exposed to topics relevant to careers, contacts with faculty etc., and increasing academic involvement.

It cannot be suggested that the situation at York University with respect to the matters raised in this study is typical of all Canadian universities. Research is required at other Canadian institutions before legitimate comments can be made in this regard. Similarly, on the basis of one study of one Canadian university it cannot be argued that the situation in this country is different than that in the United States. Once additional research has been carried out in other Canadian universities it will be possible to comment on this possibility with more certainty.

References

Astin, Alexander W.
1993 What Matters in College. San Francisco: Jossey Bass.

Astin, Alexander W.
1991 Assessment for Excellence. Toronto: Collier Macmillan.

Astin, Alexander W. and Helen S. Astin
1992 Undergraduate Science Education. Los Angeles: HERI, University of California.

Benjamin, Michael
1990 Freshman Daily Experience. Guelph: University of Guelph Student Development Monograph Series, Vol. 4.

Benjamin, Michael
1994 "Educational Equity: A Profile of Designated Groups (Draft)," Guelph: Student-Environment Study Group, University of Guelph.

Centra, J. and D. Rock
1971 "College Environments and Student Academic Achievement," American Educational Research Journal, 8, 623-634.

Chickering, A.
1974 Community Versus Residential Students. San Francisco: Jossey Bass.

Dietsche, Peter
1990 "Freshman Attrition in a College of Applied Arts and Technology of Ontario," Canadian Journal of Higher Education, 20:2.

Endo, J. and R. Harpel
1983 "Student-Faculty Interaction and its Effect on Freshmen Year Outcomes at a Major State University: Paper presented to the Meetings of the Association of Institutional Research, Toronto.

Grayson, J. Paul
1994a "First Year Science in a Commuter University: Where to Intervene,"Canadian Journal of Higher Education, 24:2.

Grayson, J. Paul
1994b The Social Construction of 'Visible Minority' for Students of Chinese Origin. Toronto: Institute for Social Research, York University.

Grayson, J. Paul
1994c Racialization and Black Student Identity at York University. Toronto: Institute for Social Research, York University.

Hurtado, Sylvia
1992 "The Campus Racial Climate," Journal of Higher Education, 63:5.

Jackson, Kenneth W. and L. Alex Swan
1991 "Institutional and Individual Factors Affecting Black Undergraduate Student Performance: Campus Race and Student Gender," in Walter R. Allen et al (eds.), College in Black and White. Albany: State University of New York Press.

Loo, Chalsa and Garry Rolison
1986 "Alienation of Ethnic Minority Students at a Predominantly White University," Journal of Higher Education, 57:1.

Nettles, Michael T.
1991 "Racial Similarities and Differences in the Prediction of College Student Achievement," in Walter R. Allen et al (eds.), College in Black and White. Albany: State University of New York Press.

Pascarella, E. and P. Terenzini
1976 "Informal Interaction with Faculty and Freshman Ratings of Academic and Non-Academic Experiences of College," Journal of Educational Research. 70, 35-41.

Pascarella, E. and P. Terenzini
1977 "Patterns of Student-Faculty Informal Interaction Beyond the Classroom and Voluntary Freshman Attrition," Journal of Higher Education. 48, 540-552.

Pascarella, E. and P. Terenzini
1979a "Interaction Effects in Spady's and Tinto's Conceptual Models of College Dropout," Sociology of Education. 52, 197-210.

Pascarella, E. and P. Terenzini
1979b "Student-Faculty Informal Contact and College Persistence: A Further Investigation," Journal of Educational Research. 72, 214-218.

Pascarella, E. and P. Terenzini
1991 How College Affects Students. San Francisco: Jossey Bass.

Pascarella, E. et al
1983a "A Test and Reconceptualization of a Theoretical Model of College Withdrawal in a Commuter Institution Setting," Sociology of Education. 56, 88-100.

Pascarella, E. et al
1983b "Student, Faculty Relationships and Freshman Year Intellectual and Personal Growth in a Non-Residential Setting," Journal of College Student Personnel. 24, 395-402.

Patterson Jr., Aldrich M., William E. Sedlacek and Floyd W. Ferry
1984 "Perceptions of Blacks and Hispanics in Two Campus Environments," Journal of College Student Personnel, November.

Samuel, T. John
1992 Visible Minorities in Canada: A Projection. Toronto: CAF.

Sedlacek, William
1987 "Black Students on White Campuses: 20 Years of Research," Journal of College Student Personnel, November.

Smedley, Brian D., Hector F. Myles, and Shelly P. Harrell
1993 "Minority Status Stresses and the College Adjustment of Ethnic Minority Freshmen," Journal of Higher Education, 64:4.

Student-Environment Study Group
1992 "Educational Equity and Cultural Diversity: A Discussion Paper," Guelph: University of Guelph

University of Toronto
1992 University of Toronto Bulletin. March 23.

Upcraft, M. Lee and John N. Gardner (eds.)
1989 The Freshman Year Experience. San Francisco: Jossey Bass.

Volkwein, J. et al
1986 "A Study of the Academic Performance and Intellectual Growth of Transfer Students." Paper presented to the meeting of the Association for the Study of Higher Education, Chicago.

Welty, J
1976 "Resident and Commuter Students," Journal of College Student Personnel. 17, 465-68.

White, J. B. III and W. E. Sedlacek
1987 "White Student Attitudes Toward Blacks and Hispanics: Programming Implications," Journal of Multicultural Counselling and Development, 15, Oct.

York University
1994 University Academic Plan.

BEST COPY AVAILABLE